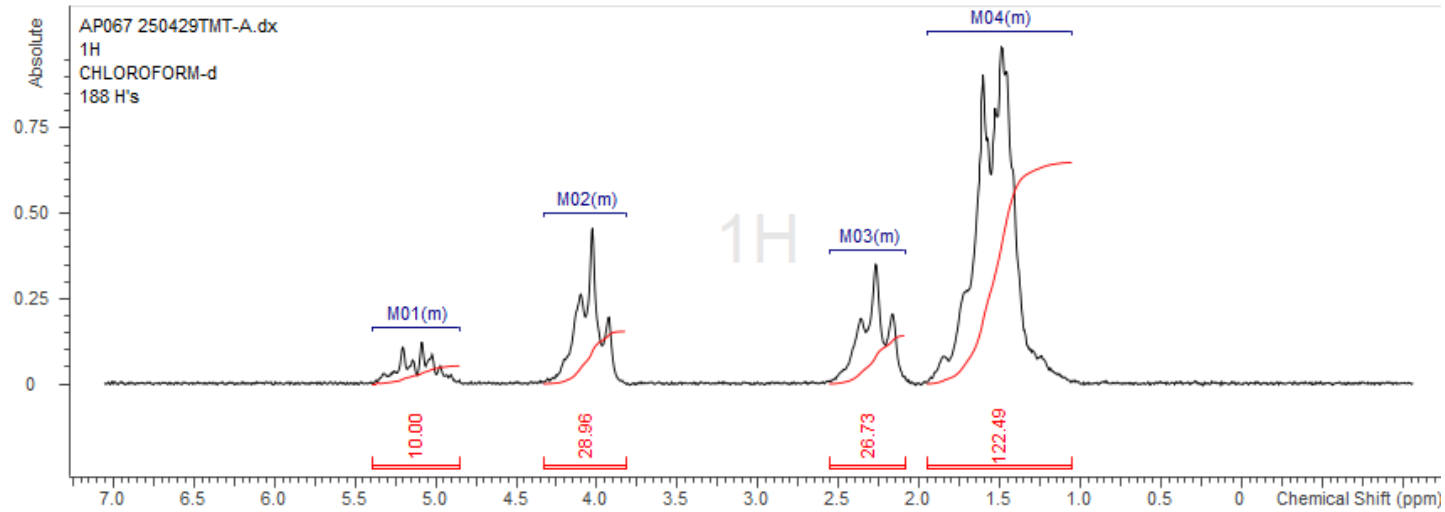
No. AP275 Certificate of Analysis

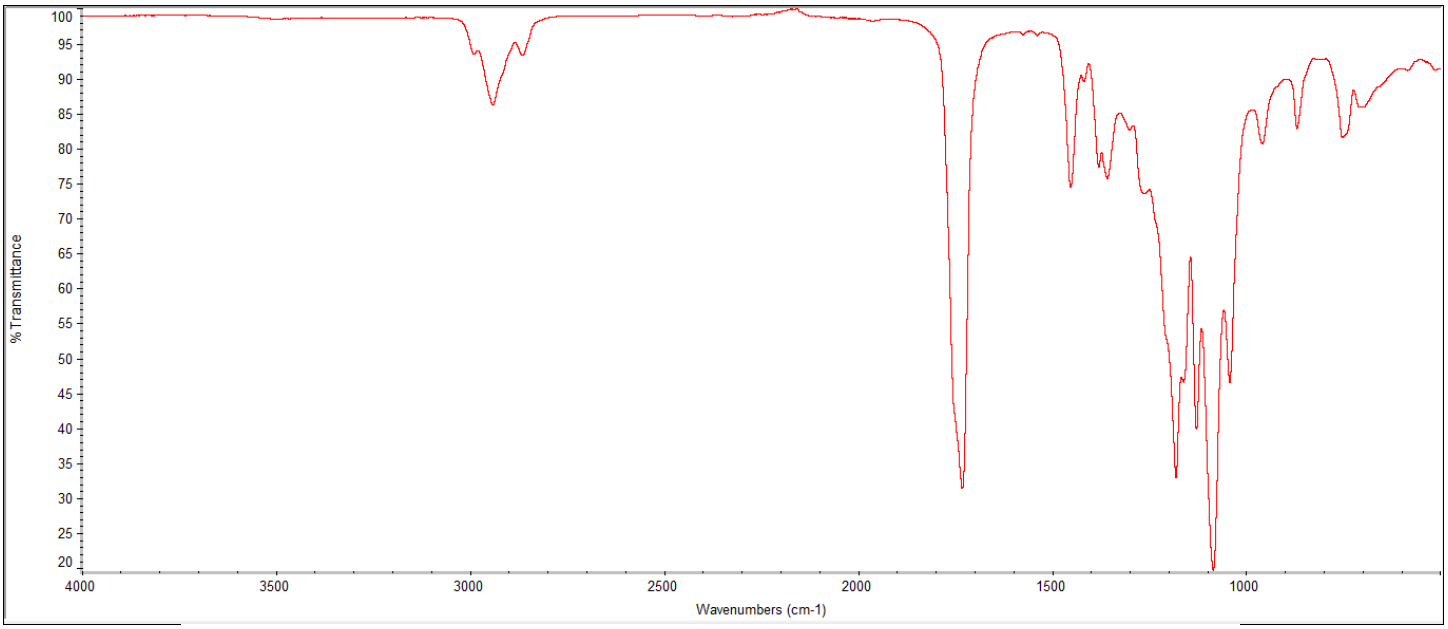
Product Name: Poly(L-Lactic-co-caprolactone) Copolymer ester endcap (40:60 LA:CL, M_n: 35,000-45,000 Da) (Lot#: 250429TMT-A)

H-NMR



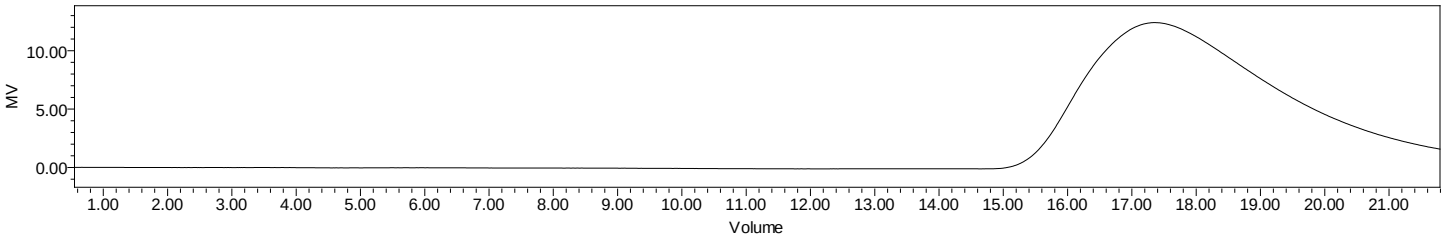
H-NMR Spectrum of copolymers in CDCl3 (NMReady-60e, Nanalysis 60 MHz) NMR of P(L)LCL copolymer: LA-CL =41%:59% molar ratio (LA:CL 30%:70%)

FTIR



FTIR Analysis: Collected from IS5 ID7-ATR spectrometer (Thermo Scientific) and analyzed in transmission mode.

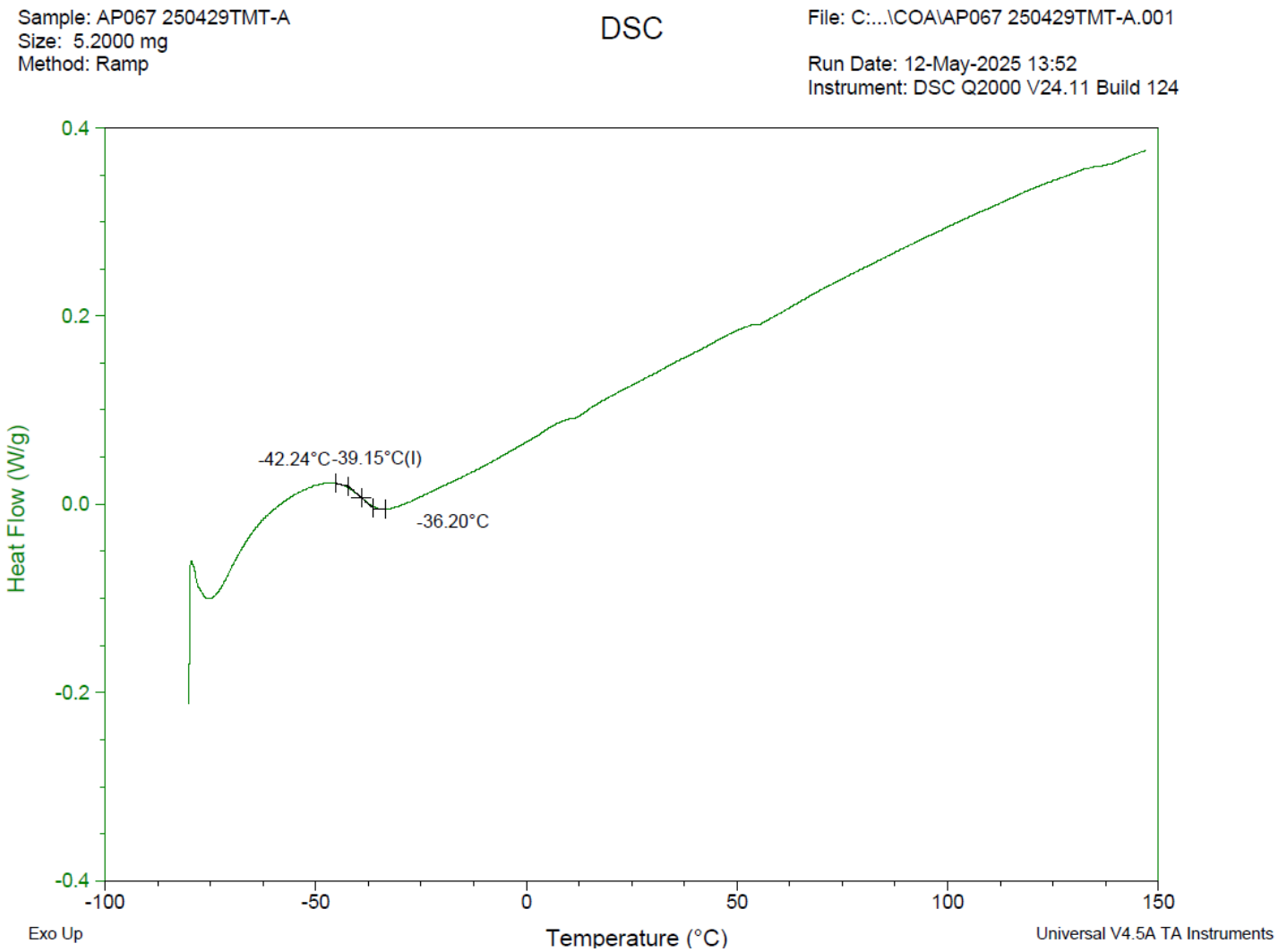
GPC-ES



Polymer	M_n (from GPC)	M_w (from GPC)	PDI
P(L)LCL	44,528	67,390	1.51

GPC-ES Analysis Method: Waters Breeze 2 system with 1 ml/min THF flow across three GPC columns. Detection via refractive index, calibrated against polystyrene standards.

DSC

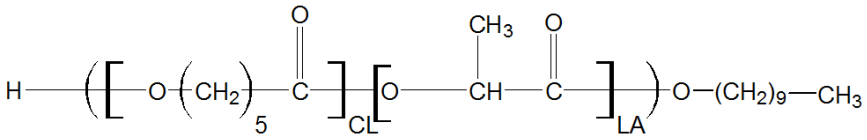


DSC Testing: 1-5 mg sample tested in crimped aluminum pan on a TA Instruments Model Q2000 with procedure equilibraion 100 °C, isothermal 5 minutes, equilibrate -80 °C, data on, ramp 10 °C/min to 150 °C. Tg = 39.15 °C

IV

Inherent Viscosity: 0.349 ± 0.007 dL/g (calculated from kinematic viscosity at 2% w/v Acetone on Rheosense microVISC, n=3) at 25ºC.

Structure of copolymers



Approved By:
Amie Tyler
Quality Manager